



AN ISO 9001 : 2008 COMPANY & NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2017
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

QC ABSTRACT

NAME OF WORK: "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."

SL NO	Item Of Work	Name of Test	Frequency of Test/Quantity	Executed Quantity	Number of Tests Required	Number of Tests Conducted
Materials						
1	WMM	Sieve Analysis	Two Test		2	2
		Impact Value	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
2	BC	SIEVE ANALYSIS	One Test		1	1
		STRIPPING VALUE	One Test		1	1
		Flakiness Index	One Test		1	1
		Elongation Index	One Test		1	1
		IMPACT VALUE	One Test		1	1
		Specific gravity	One Test		1	1
		Water Absorption	One Test		1	1
		Marshal Stability	One Test		1	1
		Marshal flow	One Test		1	1
		Percent air Voids	One Test		1	1
		Percent Voids in mineral	One Test		1	1
		Percent Voids filled with Bitumen	One Test		1	1
		Density	One Test		1	1
		Gradation	One Test		1	1
3	BITUMEN	Ductility	One Test		1	1
		Softening Point	One Test		1	1
		Penetration	One Test		1	1
		Flash Point	One Test		1	1
		Fire Point	One Test		1	1
		Rate of spread	Two Test		2	2

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶಿಬಿರಕ್ಕೆ ಉಪಸ್ಥಿತರಾಗಿ ಪರೀಕ್ಷೆ ಮತ್ತು
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

TEST RESULTS OF GRADATION FOR WMM

Lab ID : CP-RW-2021-03-23-48 Date: 04-12-2020
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."
Agency : Sri. Raghunandan.L, #13, 2nd Main, Gandhigrama, Maruthi Extension, Bangalore-560021
Customer Reference : EE/DD/WO/383 /19-20
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 02-12-2020
Type of Mix : WMM (Wet Mix Macadam)
Date of Test : 02-12-2020
Oven Dry Weight : 11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

* The results obtained are satisfactory as per standard requirements.

Note:-

The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
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Samples will be disposed after 30 days from the date of issue of test certificate

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ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
ಶಿಬಿರ ಕುಲಕರ್ಣಿ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.
Page 121
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FOR CIVIL Pro.
R. Rudraprasad
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Technical Manager

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Certificate No.: TC-5548

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE (IS 2386 (Part 1) 1963 (RA 2007))

Lab ID : CP-RW-2021-03-23-48 Date: 03-12-2020
 Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
 Address : Shettyhalli Sub Division, BBMP, Bangalore.
 Project Name : "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."
 Agency : Sri. Raghunandan.L, #13, 2nd Main, Gandhigrama, Maruthi Extension, Bangalore-560021
 Customer Reference : EE/DD/WO/383 /19-20
 Source of Sample : Sample supplied by Agency
 Sample Condition : Satisfactory
 Date of Receipt : 01-12-2020
 Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)
 Date of Test : 01-12-2020

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

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 Page 1/1
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Format No: CP/TF/01

TEST REPORT ON BITUMEN

Lab ID : CP-RW-2021-03-23-48 **Date:** 10-12-2020

Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.

Address : Shettyhalli Sub Division, BBMP, Bangalore.

Project Name : "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."

Agency : Sri. Raghunandan.L, #13, 2nd Main, Gandhigrama, Maruthi Extension, Bangalore-560021

Customer's Reference : EE/DD/WO/383 /19-20

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 08-12-2020

Sample Type : Bitumen

Reference to BIS codes : IS: 1201-1220(1978) (Reaffirmed-2004)

Date of Test : 08-12-2020

Test Results

Sl.no	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C , in 1/10th mm	64	60 to 70
2	Softening Point, °C	51.2	Min. 40°C
3	Ductility, cm	98	Min. 75cm
4	Flash point, °C	245	Min. 220°C
	Fire point, °C	272	

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ಎಸ್.ಎಂ. ರಸ್ತೆ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು
Page 1/1
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TEST RESULTS OF GRADATION FOR BC IS 2386 (Part 1) 1963 (RA 2007)

Lab ID : CP-RW-2021-03-23-48 Date: 16-12-2020
Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
Address : Shettyhalli Sub Division, BBMP, Bangalore.
Project Name : "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."
Agency : Sri. Raghunandan.L, #13, 2nd Main, Gandhigrama, Maruthi Extension, Bangalore-560021
Customer Reference : EE/DD/WO/383 /19-20
Source of Sample : Sample supplied by Agency
Sample Condition : Satisfactory
Date of Receipt : 14-12-2020
Type of Mix : BC-Plant (Bituminous Concrete)
Date of Test : 14-12-2020
Oven Dry Weight : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

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ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ
Page 1/1
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Lab ID : CP-RW-2021-03-23-48

Date: 22-12-2020

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 477

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.8	86.2	70-88
4.75	112	178	37.3	62.7	53-71
2.36	88	266	55.8	44.2	42-58
1.18	29	295	61.8	38.2	34-48
0.6	11	306	64.2	35.8	26-38
0.3	46	352	73.8	26.2	18-28
0.15	45	397	83.2	16.8	12-20
0.075	55	452	94.8	5.2	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 476

IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.9	86.1	70-88
4.75	112	178	37.4	62.6	53-71
2.36	88	266	55.9	44.1	42-58
1.18	29	295	62.0	38.0	34-48
0.6	11	306	64.3	35.7	26-38
0.3	46	352	73.9	26.1	18-28
0.15	45	397	83.4	16.6	12-20
0.075	55	452	95.0	5.0	4-10

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ನಿರ್ದೇಶಕರು
ಶಿಕ್ಷಣ ಮತ್ತು
ಬೃಹತ್ ಮಹಾನ್ ಮಹಾನ್ ಮಹಾನ್
ಎಸ್.ಎಂ. ರೈ, ಡಿರಕ್ಟರ್, ಬೆಂಗಳೂರು



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Technical Manager

Page 2/2

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DETERMINATION OF RATE OF SPREAD TACK COAT

Lab ID : CP-RW-2021-03-23-48 Date: 22-12-2020
 Customer : Assistant Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
 Address : Shettyhalli Sub Division, BBMP, Bangalore.
 Project Name : "Pothole Filling in Ward No 12 Shettyhalli, Shettyhalli Sub Divisio."
 Agency : Sri. Raghunandan.L, #13, 2nd Main, Gandhigrama, Maruthi Extension, Bangalore-560021
 Customer Reference : EE/DD/WO/383 /19-20
 Sample Condition : Satisfactory
 Date of Receipt : 21-12-2020
 Type of Mix : Tack coat
 Date of Test : 21-12-2020

Sl.No	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
5	Weight of tack Coat (d=c-b)	Kg	0.023	0.023
6	Rate of spread of tack coat	Kg/sq.m	0.256	0.256
7	Average	Kg/sq.m	0.256	
8	Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

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 Technical Manager

ನಕಾಯಕ ಕೆಲಸದ ಮೇಲೆ ಪರಿಶೀಲನೆ
 ಶಿಕ್ಷಕರು ಉಪಸ್ಥಿತರಾಗಿ, ಮಾದರಿ
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 ಪ್ರಾ.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು.

Page 1/1
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